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## APPENDIX

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seafloor areas from a surface location far away from the area of concern. The largest offset from the surface location to the bottom hole location is 26,000 feet.

Another technology that has greatly improved the drilling of wells is measurement while drilling (MWD) tools. These tools are located on the drill pipe within 50 feet of the bit and gives the driller instant downhole information. These tools measure directional information, bottom hole pressure, bottom hole temperature, formation properties, pipe torque, etc. This greatly improves well control, as one knows downhole data, real time.

Subsea tiebacks are an important part of deepwater development. Many wells can be drilled from multiple locations and the production from those wells can be tied back to one surface facility. In the Gulf of Mexico (GOM) this is a common field development plan. The longest gas well tieback in the GOM is 62 miles and the longest oil well tieback in the GOM is 29 miles.

During the initial exploratory drilling phase there needs to be some onshore support. There will need to be port facilities for supply vessels to use to bring out supplies and personnel. There also would be a need for helicopter bases to transport personnel to the rigs. In the GOM there are bases along the Louisiana and Texas coast for these purposes. Additionally approximately 42,000 people work offshore in the GOM, in addition to the thousands for onshore support. Depending what the exploratory wells uncover, development of offshore oil and gas could lead to onshore infrastructure expansion to pipeline facilities, fabrication yards, shipyards, etc.

In summary, the industry has the technology to safely explore the Outer Continental Shelf (OCS) in a safe and pollution free manner. In doing so, the OCS can help supply the nation with domestic oil and gas resources. For the State of North Carolina jobs and industries would be created to help stimulate the economy.

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#### **Importance of Increased Domestic Production**

Although the share of non-fossil fuels is growing rapidly, fossil fuels – oil, natural gas and coal – will continue to play leading roles through 2030. The U.S. Energy Information Administration (EIA) forecasts U.S. energy demand will grow by 11 percent between 2007 and 2030, with more than half of the energy demand expected to be met by oil and natural gas, as is the case today. Increasing access to domestic sources of oil and natural gas would create new high paying jobs, bring billions of dollars to federal and state treasuries, reduce our balance of payments and enhance America's energy security.

With energy consumption expected to grow in the coming decades, America needs access to its untapped domestic resources. These resources can replace output from maturing fields and strengthen our energy security. According to the U.S. Minerals Management Service (MMS), the Atlantic and Pacific Outer Continental Shelf (OCS) that had been subject to moratoria contain an estimated 14.3 billion barrels of oil and 55 trillion cubic feet of natural gas. All areas of the OCS should be available without buffer zones, since these areas can be developed in an environmentally safe manner with a minimal impact on coastal communities. Advances in drilling and production technology have allowed the industry to develop fields close to existing infrastructure without the installation of additional platforms. In some cases production is transported directly to shore without the need for a production platform.